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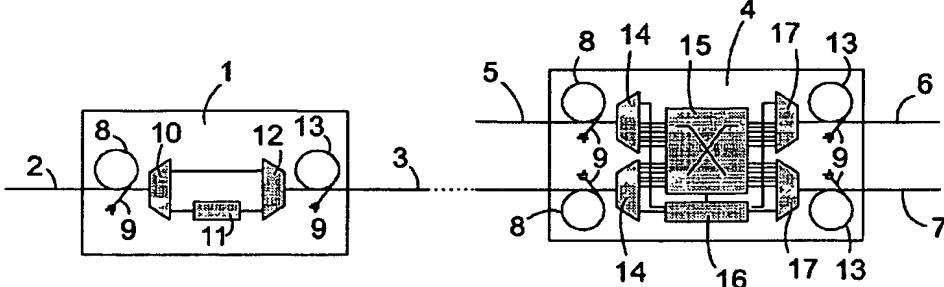
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(54) Title: OPTICAL NETWORK AND AMPLIFIER NODE THEREFORE



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(57) Abstract: An optical network comprises a transmitter node (1), a receiver node (4) and an optical fibre (3) for transmitting an optical wavelength-division multiplex signal having payload channels and a supervisory channel between the nodes (1, 4). At least one of the nodes has an amplifier (8, 13) which is passed by the multiplex signal. The transmitter node (1) has a source (11) for the supervisory channel and a multiplexer (12) for combining the payload channels and the supervisory channel in order to form the optical wavelength-division multiplex signal, and the receiver node (4) has a sink (16) for the supervisory channel and a demultiplexer (14) for separating the wavelengthdivision multiplex signal into supervisory and the payload channels. The multiplexer (12) and the demultiplexer (14) are adapted to insert and extract, respectively, as the supervisory channel, a wavelength into/from the optical multiplex signal, the attenuation of which between source (11) and sink (16) is essentially the same in the pumped and unpumped states of the amplifier (8, 13).